

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. Applicant/Contact name and address: Legacy Ranches Partners LP, PO Box 6279, Bozeman, MT 59771.
2. Type of action: Application to Change an Existing Irrigation Water Right 43BV 30106767.
3. Water source name: Sweet Grass Creek
4. Location affected by project: Sections 32 and 33 T4N R15E.
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The Applicant proposes to take 61.66 acres out of irrigation in N2 and N2N2S2 Section 32 T4N R15E and add 43.50 AC in N2, NESE Section 32 T4N R15E and W2W2NW Section 33 T4N R15E. The Applicant is replacing flood irrigation below the Drivdahl Ditch with two center pivot sprinkler systems centered on the historic place of use. Applicant plans to divert 9.0 CFS through the Drivdahl Ditch. No change in diversion or conveyance is proposed. Applicant is requesting a change in the POD for water rights 43BV 116574-00 and 43BV 116575-00 to the headgate on Sweet Grass Creek such that all four water rights would be identical after the change. The DNRC shall issue a change authorization if an applicant proves the criteria in 85-2-402 MCA are met.
6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)
Montana Department of Natural Resources and Conservation
Montana Department of Fish, Wildlife and Parks
Montana Department of Environmental Quality
Montana Sage Grouse Habitat Conservation Program
Montana Natural Heritage Program
United States Fish and Wildlife Service
United States Natural Resource Conservation Service

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity – Sweet Grass Creek is listed by the Montana Department of Fish, Wildlife and Parks as periodically dewatered in the final 2 miles before the confluence with the Yellowstone River. In the area of the project, the source is not listed. The proposed change does not increase the amount of water taken from Sweet Grass Creek and decreases the consumptive use.

Determination: No Impact

Water quality – Sweet Grass Creek is classified as B-1 by the Montana Department of Environmental Quality. The B-1 classification is for waters classified as suitable for drinking, culinary, and food processing purposes after conventional treatment; bathing, swimming and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply. The proposed project is a shift from flood irrigation to center pivot sprinkler irrigation. Because of the higher efficiency of sprinkler systems, the potential for degradation of surface water through runoff and return flow is diminished.

Determination: No Impact

Groundwater – Because the project does not appropriate groundwater and because the consumptive use of the project is lower than the historic consumption, groundwater quality will be unaffected and groundwater quantity may be increased.

Determination: No Impact

DIVERSION WORKS – No change to the diversion on Sweet Grass Creek or the conveyance through the Drivdahl ditch is proposed. Because there are no changes to the diversion works, the proposed project will not impact channels, riparian environments or flow characteristics.

Determination: No Impact

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species – According to the Montana Natural Heritage Program there are no plant species of concern in the proposed project area. Within T4N R14E and T4N R15E there are a combined eight animal species of concern including the Sprague's Pipit, the Chestnut-collared Longspur, the Greater Sage Grouse, the McCown's Longspur, the Baird's Sparrow, the Bobolink, the Long-billed Curlew and the Yellowstone Cutthroat Trout. Although the Greater Sage Grouse is listed by the Montana Heritage Program, the area of the project is not included in Sage Grouse habitat as mapped by the Montana Sage Grouse Habitat Conservation Program. The proposed project is to replace flood irrigation with sprinklers on previously irrigated land. No changes to habitat will occur and no barriers would be created.

Determination: No Impact

Wetlands – The proposed project area is not mapped as part of the United States Fish and Wildlife Service National Wetlands Inventory. The area is generally dry upland benches along

the eastern flank of the Crazy Mountains and wetlands are limited to stream valleys. No wetlands are present or proposed in the project area.

Determination: No Impact

Ponds – No ponds are present or proposed in the project area.

Determination: No Impact

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE – The dominant soils in the project area are Cabbart-Megonot-Kobase clay loam and Yawdin-Rentsac-Cabbart complex. These soils are well drained and slightly to moderately saline. There is no evidence of soil instability in the area and no saline seeps. Use of high efficiency sprinkler systems decreases the likelihood of return flows increasing salinity of the source.

Determination: No Impact

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS – The project area has been in agricultural production for many years and the sprinklers and conveyance ditches have been in operation for many years. There is no proposed change in vegetative cover and no activities that would spread or establish noxious weeds. It will be the responsibility of the landowner to prevent the spread of noxious weeds.

Determination: No Impact

AIR QUALITY – A shift from flood to sprinkler irrigation has no potential to adversely affect air quality.

Determination: No Impact

HISTORICAL AND ARCHEOLOGICAL SITES – The project is not located on State or Federal Lands.

Determination: Not Applicable

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY – No other impacts on environmental resources of land, water and energy not already addressed are recognized.

Determination: No Impact

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS – There are no known locally adopted environmental plans or goals.

Determination: No Impact

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES – No roads are present or proposed as part of this project. The project is not adjacent to or near recreational or wilderness sites. The project is only to change the method of irrigation on existing agricultural land.

Determination: No Impact

HUMAN HEALTH - A shift from flood to sprinkler irrigation has no potential to adversely affect human health.

Determination: No Impact

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*

Yes___ No__X_ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination: No Impact

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

- (a) Cultural uniqueness and diversity? No Significant Impact
- (b) Local and state tax base and tax revenues? No Significant Impact
- (c) Existing land uses? No Significant Impact
- (d) Quantity and distribution of employment? No Significant Impact
- (e) Distribution and density of population and housing? No Significant Impact
- (f) Demands for government services? No Significant Impact
- (g) Industrial and commercial activity? No Significant Impact
- (h) Utilities? No Significant Impact
- (i) Transportation? No Significant Impact
- (j) Safety? No Significant Impact
- (k) Other appropriate social and economic circumstances? No Significant Impact

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts: No secondary impacts are recognized.

Cumulative Impacts: No cumulative impacts are recognized.

3. ***Describe any mitigation/stipulation measures:*** None
4. ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*** The only reasonable alternative to the proposed project is a no-action alternative. The no-action alternative prevents the applicant from modernizing the irrigation system, increasing efficiency and improving crop yield. There are no recognized environmental impacts of the proposed project.

PART III. Conclusion

1. ***Preferred Alternative:*** Issue a change authorization if an applicant proves the criteria in 85-2-402 MCA are met.

- 2 ***Comments and Responses:*** None

3. ***Finding:***
Yes___ No_X__ Based on the significance criteria evaluated in this EA, is an EIS required?

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action: No significant environmental impacts related to the proposed project were recognized during the Environmental Assessment and therefore it is the appropriate level of analysis.

Name of person(s) responsible for preparation of EA:

Name: Mark Elison

Title: Hydrologist

Date: 11/1/2016